

What is claimed is:

1. A pharmaceutical composition comprising a therapeutically effective delayed release oral dosage form of a bioactive polypeptide, wherein said composition comprises a bioactive polypeptide, wherein said polypeptide includes one or more properties selected from the group consisting of lacking an N-linked glycosylation site, having no more than one cysteine amino acid, and having a basic pI;
at least one binder;
at least one plasticizer;
at least one glidant; and
a methacrylic acid copolymer.
2. The composition of claim 1, wherein said polypeptide includes two or more properties selected from the group consisting of lacking an N-linked glycosylation site, having no more than one cysteine amino acid, and having a basic pI.
3. The composition of claim 1, wherein said polypeptide lacks an N-linked glycosylation site, having no more than one cysteine amino acid, and having a basic pI.
4. The composition of claim 1, wherein said polypeptide has no cysteine amino acids.
5. A pharmaceutical composition comprising a therapeutically effective delayed release oral dosage form of an interleukin-11 ("IL-11") polypeptide, wherein said composition comprises
an IL-11 polypeptide;
at least one binder;
at least one plasticizer;
at least one glidant; and
a methacrylic acid copolymer.

6. The pharmaceutical composition of claim 5, further comprising a carbohydrate.
7. The pharmaceutical composition of claim 6, wherein said carbohydrate comprises sucrose.
8. The pharmaceutical composition of claim 6, wherein said carbohydrate is present in said pharmaceutical composition at 60%-75% wt/wt.
9. The pharmaceutical composition of claim 9, further comprising glycine.
10. The pharmaceutical composition of claim 9, wherein said glycine is present in said pharmaceutical composition at 1% to 4% wt/wt.
11. The pharmaceutical composition of claim 9, further comprising methionine.
12. The pharmaceutical composition of claim 11, wherein methionine is present in said composition at a concentration of 0.1% to 0.5% wt/wt.
13. The pharmaceutical composition of claim 1, wherein said methacrylic acid copolymer is a pH dependent anionic polymer solubilizing above pH 5.5.
14. The pharmaceutical composition of claim 13, wherein said methacrylic acid copolymer is provided as a dispersion.
15. The pharmaceutical composition of claim 13, wherein said methacrylic acid copolymer is presenting in said pharmaceutical composition at a concentration of 10% to 20% wt/wt.
16. The pharmaceutical composition of claim 9, wherein said IL-11 polypeptide has the amino acid sequence of a human IL-11 polypeptide.

17. The pharmaceutical composition of claim 9, wherein said IL-11 polypeptide is a recombinantly produced IL-11 polypeptide.

18. The pharmaceutical composition of claim 16, wherein said IL-11 polypeptide is a recombinantly produced IL-11 polypeptide.

19. The pharmaceutical composition of claim 5, wherein said at least one binder is hydroxypropyl methylcellulose (HPMC).

20. The pharmaceutical composition of claim 5, wherein HPMC is present in said composition at a concentration of 3%-7%.

21. The pharmaceutical composition of claim 5, wherein said at least one glidant is talc.

22. The pharmaceutical composition of claim 21, wherein talc is present in said composition at a concentration of 5% to 10%.

23. The pharmaceutical composition of claim 5, wherein said at least one plasticizer is triethyl citrate or polysorbate-80.

24. The pharmaceutical composition of claim 23, wherein said triethyl citrate is present in said composition at a concentration of 1%-2% wt/wt.

25. The pharmaceutical composition of claim 23, wherein said polysorbate-80 is present in said composition at a concentration of 0.015% -0.045% wt/wt.

26. The pharmaceutical composition of claim 5, wherein said at least one plasticizer is triethyl citrate.

27. A pharmaceutical composition comprising a therapeutically effective delayed release oral dosage form of a bioactive polypeptide,

wherein said bioactive polypeptide includes one or more properties selected from the group consisting of lacking an N-linked glycosylation site, having no more than one cysteine amino acid, and having a basic pI, and

wherein said bioactive polypeptide is substantially enveloped by a first sealing coat, an enteric coating layer, and a second sealing coat, wherein said enteric coating layer is substantially disposed between said first and second sealing coat.

28. A pharmaceutical composition comprising a therapeutically effective delayed release oral dosage form of an Interleukin-11 ("IL-11") polypeptide, wherein said IL-11 polypeptide is substantially enveloped by a first sealing coat, an enteric coating layer, and a second sealing coat, wherein said enteric coating layer is substantially disposed between said first and second sealing coat.

29. The pharmaceutical composition of claim 28, wherein at least one of said first sealing coat and said second sealing coat is HPMC.

30. The pharmaceutical composition of claim 28, wherein said first sealing coat and said second sealing coat comprise HPMC.

31. The pharmaceutical composition of claim 28, wherein said enteric coating layer comprises a methacrylic acid copolymer.

32. The pharmaceutical composition of claim 28, wherein said IL-11 polypeptide is provided disposed on a carbohydrate.

33. The pharmaceutical composition of claim 32, wherein said carbohydrate is sucrose.

34. The pharmaceutical composition of claim 28, further comprising methionine.
35. The pharmaceutical composition of claim 28, further comprising glycine.
36. The pharmaceutical composition of claim 28, further comprising a glidant.
37. The pharmaceutical composition of claim 36, wherein said glidant is talc.
38. The pharmaceutical composition of claim 28, wherein said composition is provided as a capsule or a tablet.
39. The pharmaceutical composition of claim 38, wherein said composition is provided as a tablet.
40. The pharmaceutical composition of claim 38, wherein said composition is provided as a capsule.
41. The pharmaceutical composition of claim 40, wherein said capsule is a gelatin capsule.
42. A method of delivering a bioactive polypeptide to a subject, the method comprising orally administering to said subject the pharmaceutical composition of claim 1 in an amount sufficient to elicit a biological response in said subject.
43. A method of delivering an interleukin-11 ("IL-11") polypeptide to a subject, the method comprising orally administering to said subject the pharmaceutical composition of claim 5 in an amount sufficient to elicit a biological response in said subject.
44. The method of claim 43, wherein said IL-11 polypeptide elicits a biological response in the small intestine of said subject.

45. The method of claim 43, wherein said subject is a human.
46. The method of claim 43, wherein said IL-11 polypeptide is administered in a composition comprising
- at least one binder;
 - at least one plasticizer;
 - at least one glidant; and
 - a methacrylic acid copolymer.
47. The method of claim 43, wherein said interleukin-11 (IL-11) polypeptide is recombinant human IL-11.
48. A method of treating inflammatory bowel disease in a subject, the method comprising orally administering to a subject in need thereof a therapeutically effective dose of IL-11.
49. The method of claim 48, wherein said inflammatory disease is ulcerative colitis.
50. The method of claim 48, wherein said inflammatory disease is Crohn's disease.
51. The method of claim 48, wherein said subject is a human.
52. The method of claim 48, wherein said IL-11 polypeptide is administered in a composition comprising
- at least one binder;
 - at least one plasticizer;
 - at least one glidant; and
 - a methacrylic acid copolymer.